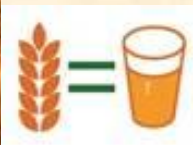
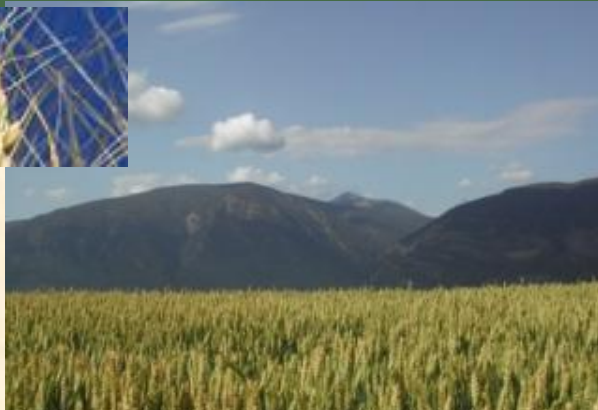


2015 Idaho Grain Outlook



Kelly Olson, kolson@barley.idaho.gov
Northwest Farm Credit, May 13, 2015

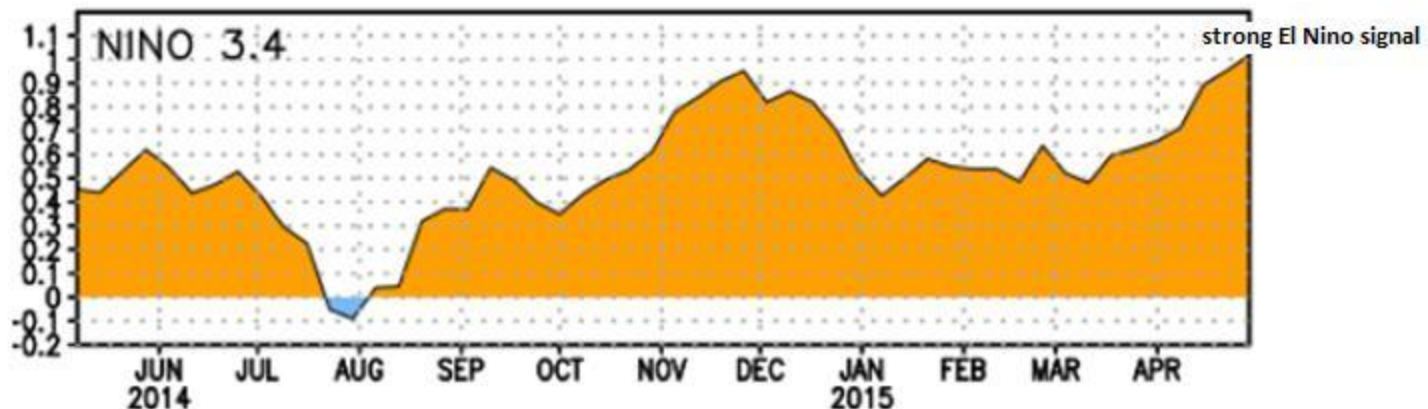
Key Points

- ☐ **Recap 2014 Idaho Grain Crop Issues**
- ☐ **Outside Market Influences / Volatility**
- ☐ **World & U.S. Grain Market Fundamentals**
- ☐ **Barley, Corn and Wheat Market Trends**
- ☐ **2015 Grain Crop Issues**

2014 Harvest Quality Disaster

Wettest August across southern and eastern Idaho since 1953. Monsoonal rains started August 4 and didn't finish for about 5 weeks.

Sea Surface Temperature Anomalies (C) Nino 3.4 Region of Equatoria Pacific Ocean



Data source US Climate Prediction Center

Significant Pre-Harvest Sprout

- Barley and wheat germinated within the grain head prior to harvest.
- Occurs when harvest is delayed because of overly wet conditions.
- Genotypes with shorter dormancy period are higher risk.
- Increased enzyme activity causes breakdown of proteins and starches.
- Decreased grain yields and quality downgraded to feed. Economic losses estimated \$120-150 million.



The Malting Process

Steeping



Germination



Kilning



Idaho Barley Highlights

Harvested acreage 510,000 acres -18%

Ave. Yield 94.0 bu/Ac +1%

Production 47,940,000 bu -17%

- **27% of U.S. total barley production**
- **2014 Idaho farm-gate receipts estimated at \$266 million, down 22% from 2013 and 5th largest Idaho cash crop**
- **2014 insurance indemnities \$21.5 million**
- **2015 malting barley contract prices are steady to 10% lower**
- **2015 projected acres (USDA March 31) 580,000, +4%**

Idaho Wheat Highlights

Harvested acreage 1,196,000 acres -5%

Ave. Yield 78.4 bu/Ac -5%

Production 93,720,000 bu -10%

- **2014 Idaho farm-gate receipts estimated at \$646 million, down 13% from 2013 and 2nd largest Idaho cash crop**
- **2014 insurance indemnities \$26.6 million**
- **2015 SW and HRS prices have enjoyed strong basis**
- **2015 projected acres (USDA March 31) 1.327 million, +4%**

Outside Market Influences

- **Speculative \$\$\$ Bearish Grains**
- **Geopolitical concerns** – Middle East, Iran, Ukraine/Russia
- **Global economic worries**
 - Chinese and European economies slowed
 - U.S. economic growth slowed Q1 2015
 - Dollar at 11+ year high
 - Global economic growth prospects ?

MY 2014/15 World Grain S&D

USDA, May 12, 2015

	<u>World Barley</u>	<u>U.S. Barley</u>	<u>World Corn</u>	<u>U.S. Corn</u>	<u>World Wheat</u>	<u>U.S. Wheat</u>
Output	140.9 MMT - 3%	3.8 MMT - 18%	996 MMT + .6%	361.1 MMT + 3%	726.5 MMT + 1%	55.1 MMT - 5%
Use	141.5 MMT + 0.3%	4.2 MMT - 12%	977.4 MMT + 3%	299.7 MMT + 2%	715.5 MMT + 2%	32.6 MMT - 5%
Ending	24.5 MMT - 2%	1.7 MMT - 6%	192.5 MMT + 11%	47 MMT + 50%	200.9 MMT + 6%	19.3 MMT + 20%
Stocks / Use (previous year)	17% (18%)	38% (35%)	20% (18%)	14% (9%)	28% (27%)	34% (24%)

MY 2015/16 World Grain S&D

USDA, May 12, 2015

	<u>World Barley</u>	<u>U.S. Barley</u>	<u>World Corn</u>	<u>U.S. Corn</u>	<u>World Wheat</u>	<u>U.S. Wheat</u>
Output	139.7 MMT - 1%	4.3 MMT + 12%	989.8 MMT + 1%	346.2 MMT - 4%	718.9 MMT + 1%	56.8 MMT + 3%
Use	142.1 MMT + 0.4%	4.6 MMT + 9%	990.4 MMT + 1%	301.2 MMT + 0.5%	716.6 MMT + 1%	33.2 MMT + 2%
Ending	22.1 MMT - 10%	1.7 MMT 0 %	191.9 MMT - 0.3%	44.4 MMT - 6%	203.3 MMT + 1%	21.6 MMT + 12%
Stocks / Use (previous year)	16% (17%)	35% (38%)	19% (20%)	13% (14%)	28% (28%)	37% (34%)

Grain Price Outlook

National ave. prices USDA WASDE May 12, 2015	Barley	Corn	Wheat
USDA MY 2014/15	\$5.30	\$3.65	\$6.00
Idaho prices	\$4.90		\$6.15
USDA MY 2015/16	\$4.50	\$3.50	\$5.00
	2015 Idaho malt contract prices \$5.50 - \$6.24		

DXM15 - U.S. Dollar Index - Daily Line Chart



Barley Market 2014/15



- Lower world and U.S. production after significant recovery in 2013
- U.S. production -18%
- U.S. usage -12%
- World Ending Stocks -2%
- U.S. Ending Stocks -6%
- **World stocks-to-use 17% (18%)**
- **U.S. stocks-to-use 38% (35%)**

Barley Market 2015/16



- World production -1%
- U.S. production +12%
 - Planted acreage +10%
 - Yield 70.7 bpa -2%
- U.S. usage +9%
- World Ending Stocks -10%
- U.S. Ending Stocks 0%
- **World stocks-to-use 16% (17%)**
- **U.S. stocks-to-use 35% (38%)**



Domestic Barley Market

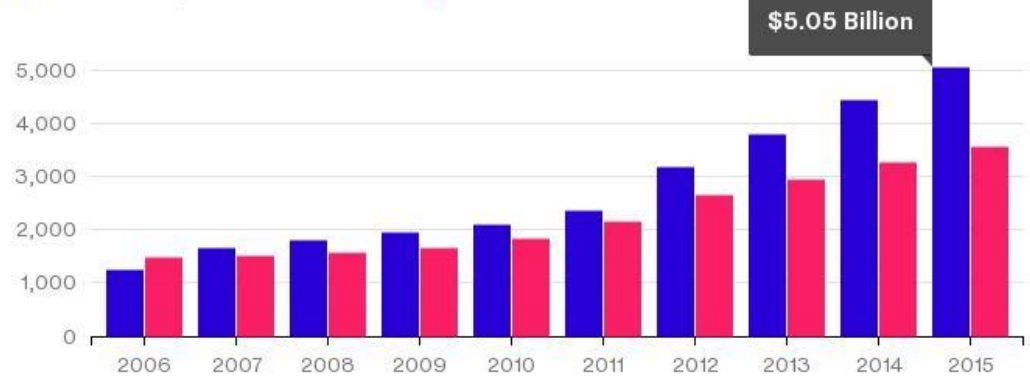
- 67% used for malting / beer
- Domestic beer sales + 0.5% in 2014, following 1.9% decrease in 2013
- Craft segment – robust growth + 18%. Represents about 11% of total volume but uses about 25% of malt



Thirsty for Craft Beer

■ Craft beer sales, in millions of dollars

■ Number of U.S. craft breweries



IRISWorld

Bloomberg

Domestic Barley Market

- **About 30% used for feed** – Idaho demand remains strong:
- **About 2-3% used for other human foods** –
 - Good fit for rising dietary health risks: heart disease, high cholesterol, obesity and diabetes.
 - Barley has 18% fiber content
 - Barley health claim – lowers bad cholesterol
 - Barley is low glycemic carbohydrate

Barley Price Outlook



- **Ave. U.S. farm-gate price projection:**
MY 2015/16* - \$4.50/bu, down 15%
MY 2014/15 - \$5.30, down 13%
MY 2013/14 - \$6.06, down 6%
MY 2012/13 - \$6.43, up 20%
- **Idaho malting barley prices**
\$6.00/bu May 2015 vs. \$4.80/bu May 2014
- **Idaho feed barley prices**
\$2.30 - 3.00/bu May 2015 vs. \$4.20 - 4.32/bu

**USDA May 12, 2015 projected*

Corn Market 2014/15



- **RECORD global corn crop**
- **RECORD U.S. production in 2013 & 2014**
- **14.2 billion bu, up 3%**
- **Ave. yield of 171 bpa, up 8%**
- **Harvested acreage 83 million, down 5%**
- **Two back to back years of higher ending stocks +52% and +50%**

SLUGGISH DEMAND

- **Total U.S. usage up 1%**
- **Feed use - up 4% (5.25 billion bu)? Avian flu expanding across 15 states**
- **Record ethanol use - up 1.2% (5.2 billion bu)?**
- **Exports - down 5%**

Corn Market 2014/15

- **WILD CARD: Chinese imports?** 3.0 MMT projected for MY 14/15 vs. 3.3 MMT last year. U.S. just restored as corn supplier.
- China holds about 47% of world's corn stocks.
- **World corn stocks-to-use 20% (18%)**
- **U.S. corn stocks-to-use 14% (9%)**

Corn Market 2015/16

- World production -1%
- U.S. production -4%
 - Planted acreage -2%
 - Yield 166.8 bpa (trendline) -2.5%
- U.S. usage +1%
- World Ending Stocks – 0.3%
- U.S. Ending Stocks –6%
- **World corn stocks-to-use 19% (20%)**
- **U.S. corn stocks-to-use 13% (14%)**

Global Corn Outlook

■ Bigger Crops

China +6%

Argentina +2%

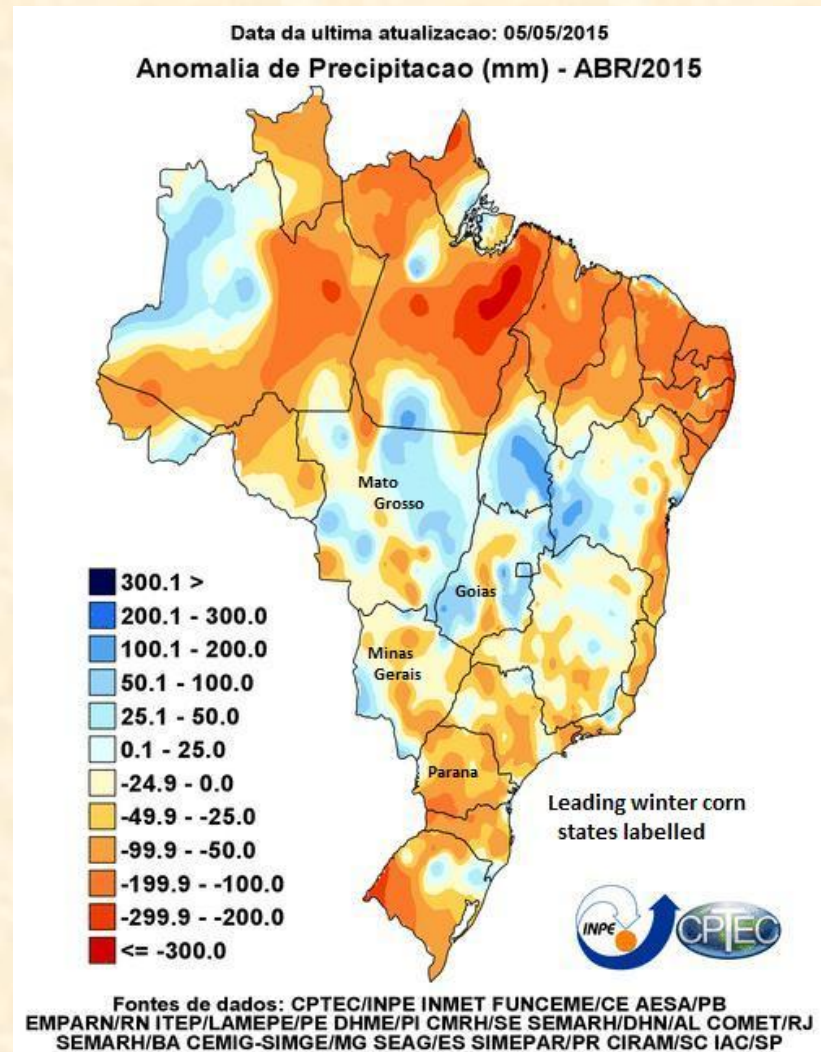
■ Smaller Crops

U.S. -4%

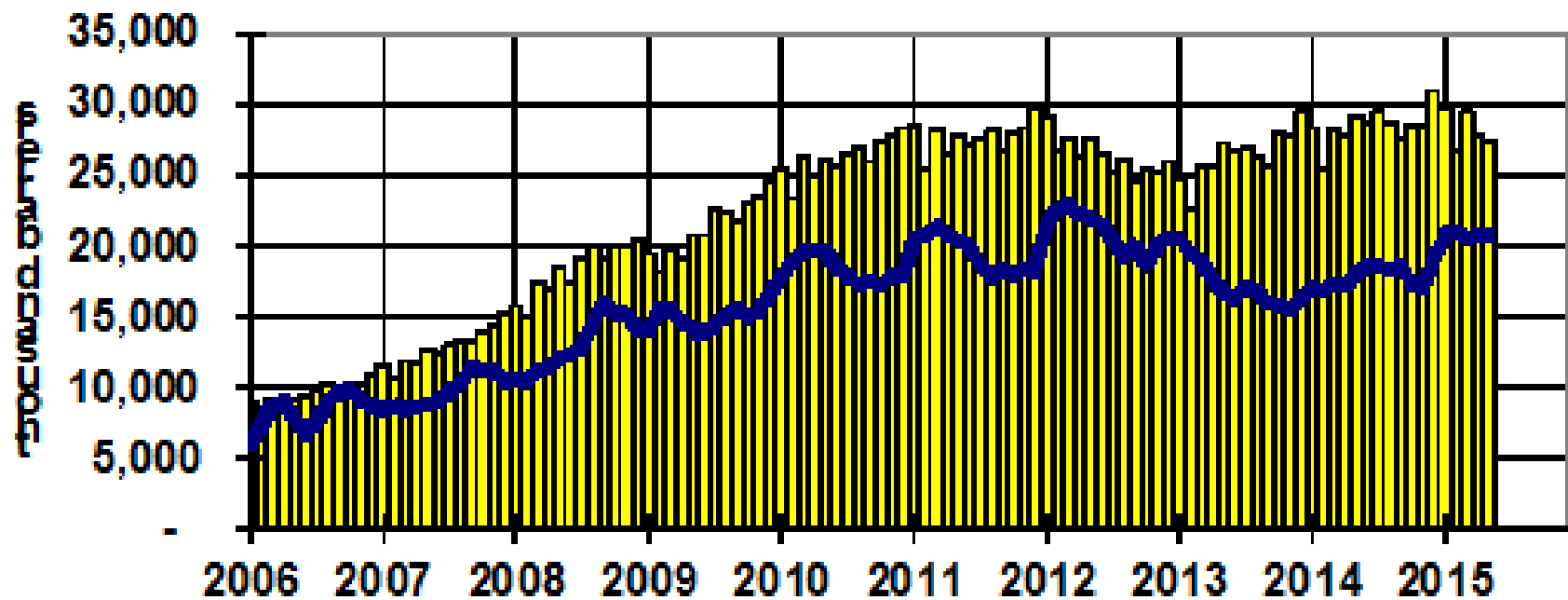
Brazil -4% ?

Ukraine -7%

EU -7%



Monthly U.S. ethanol production and stocks

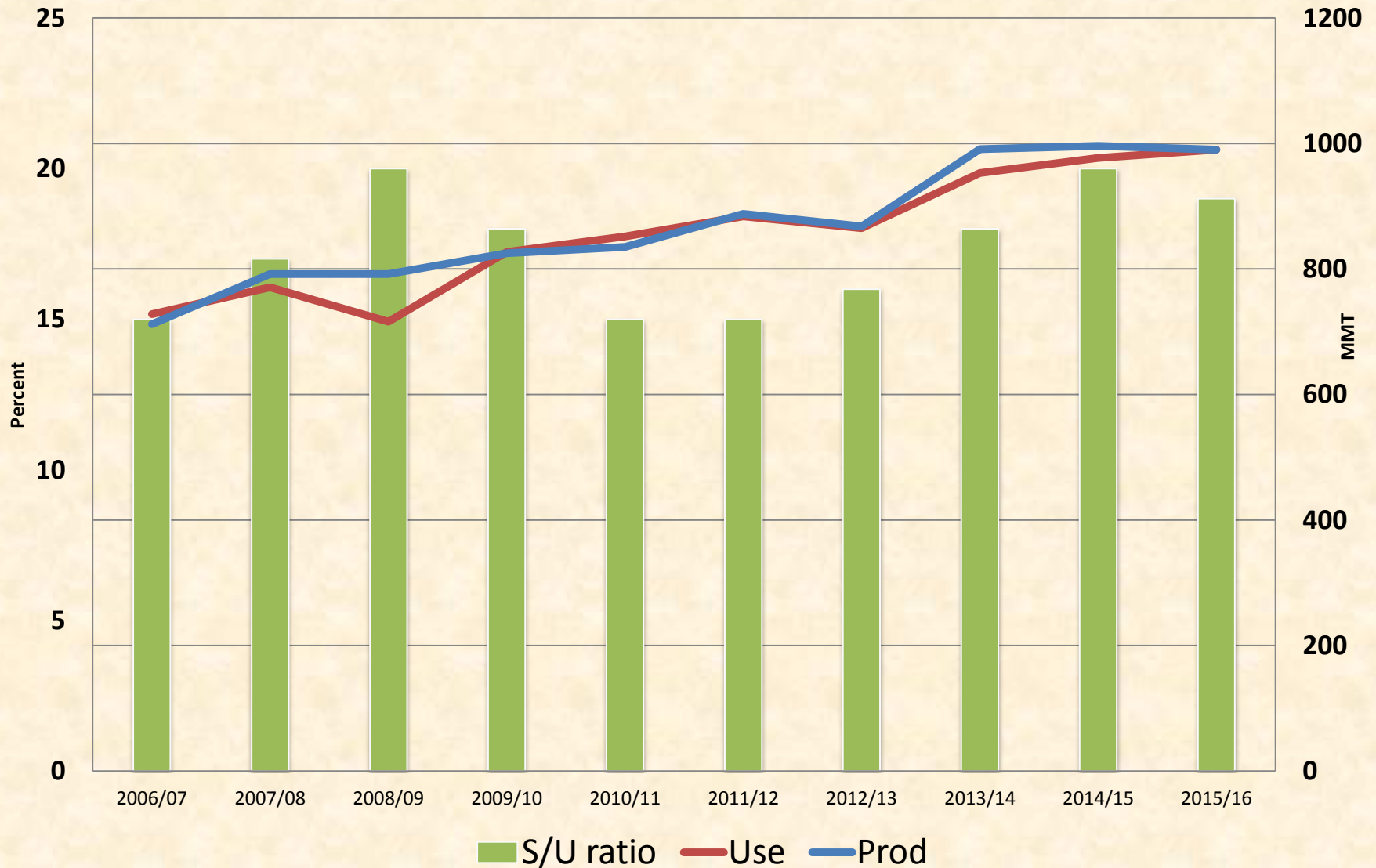


Source: USEIA

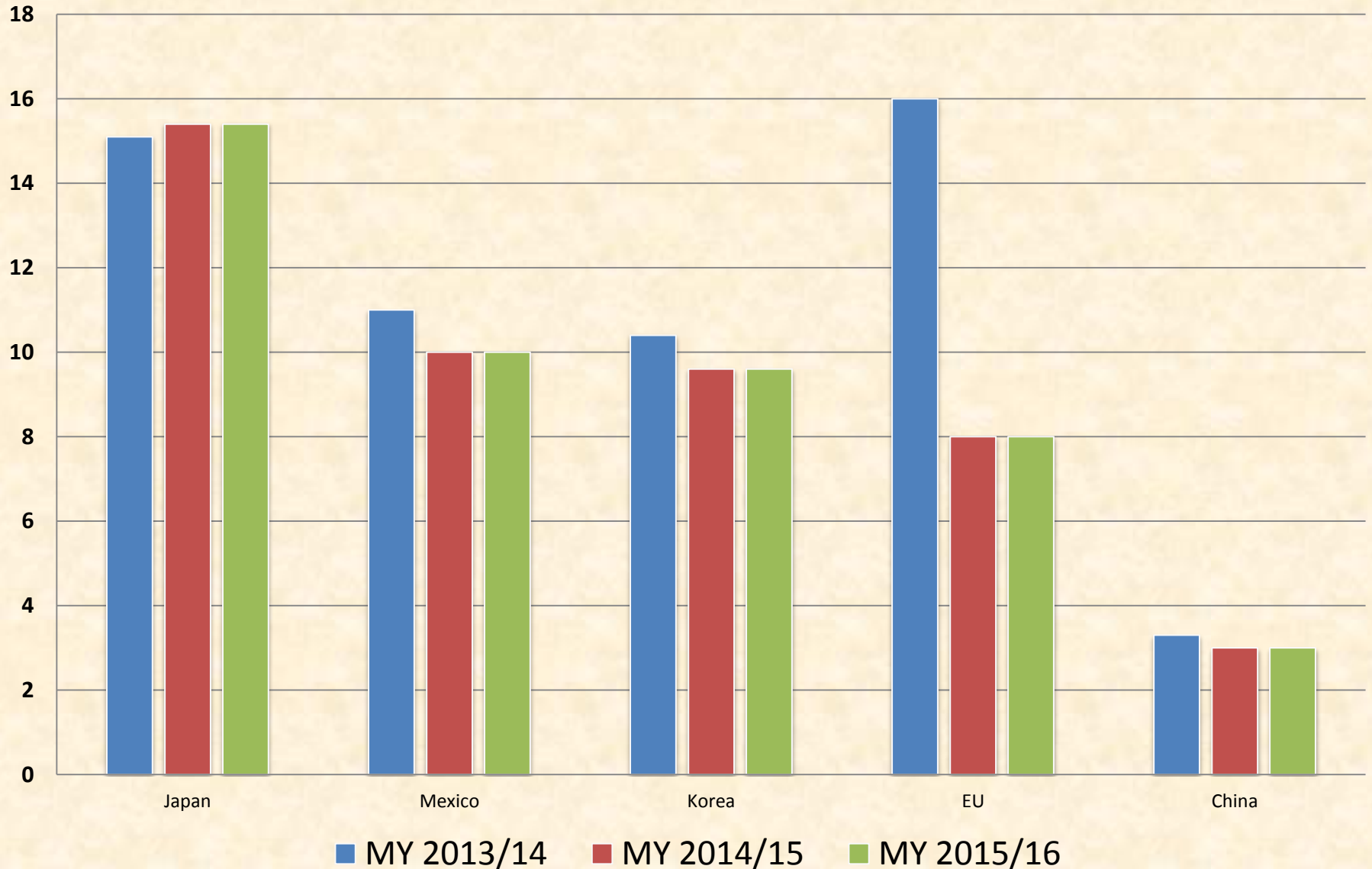
Production Stocks

MY 2014/15 projected corn used for ethanol – 5.2 billion bu, up 1.2%

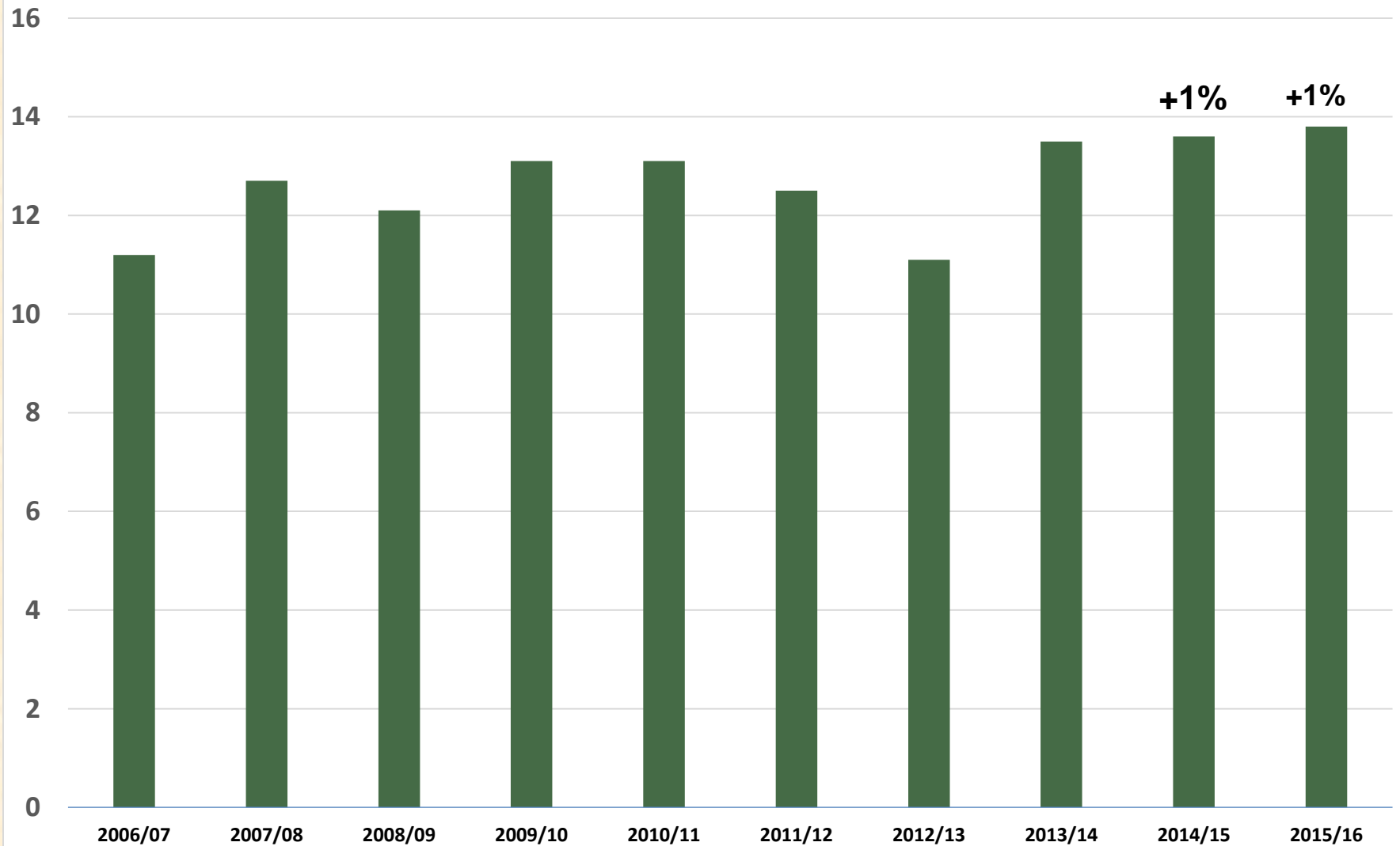
World Corn Prod, Use, Stocks/Use



World Corn Importers, MMT



U.S. Corn Disappearance billion bu



ZCZ15 - Corn - Daily Line Chart



ZC - Corn - Weekly Nearest Line Chart



Corn Price Outlook



- **Ave. U.S. farm-gate price projection:**
MY 2015/16* - \$3.50/bu, down 4%
MY 2014/15 - \$3.65/bu, down 18%
MY 2013/14 - \$4.46, down 35%
MY 2012/13 - \$6.89, up 11%

**USDA May 12, 2015 projected*

Wheat Market 2014/15



- **RECORD global wheat crop**
- U.S. crop down 5%
- Total U.S. usage down 15%
- U.S. wheat export sales pace has been very sluggish, down 27%
- U.S. feed usage down 28%
- Rebuilding stocks +16%
- **World stocks-to-use 28% (27%)**
- **U.S. stocks-to-use 34% (24%)**

Wheat Market 2015/16

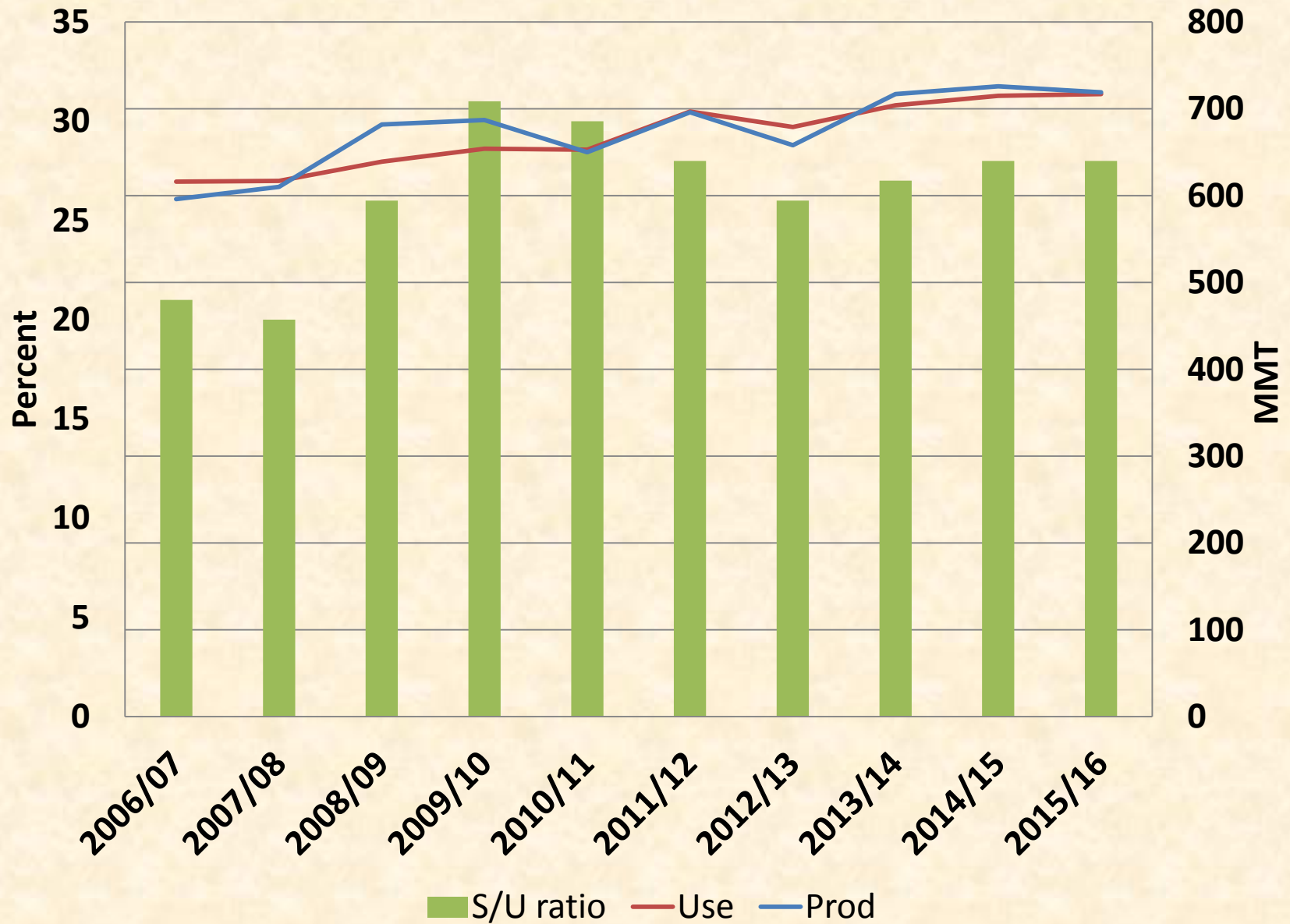


- World production +1%
- U.S. production +3%
 - Planted acreage -2.5%
 - Harvested acreage +3.4%
 - Yield 43.5 bpa -0.5%
- U.S. usage +4%
- World Ending Stocks +1%
- U.S. Ending Stocks +12%
- **World corn stocks-to-use 28% (28%)**
- **U.S. corn stocks-to-use 37% (34%)**

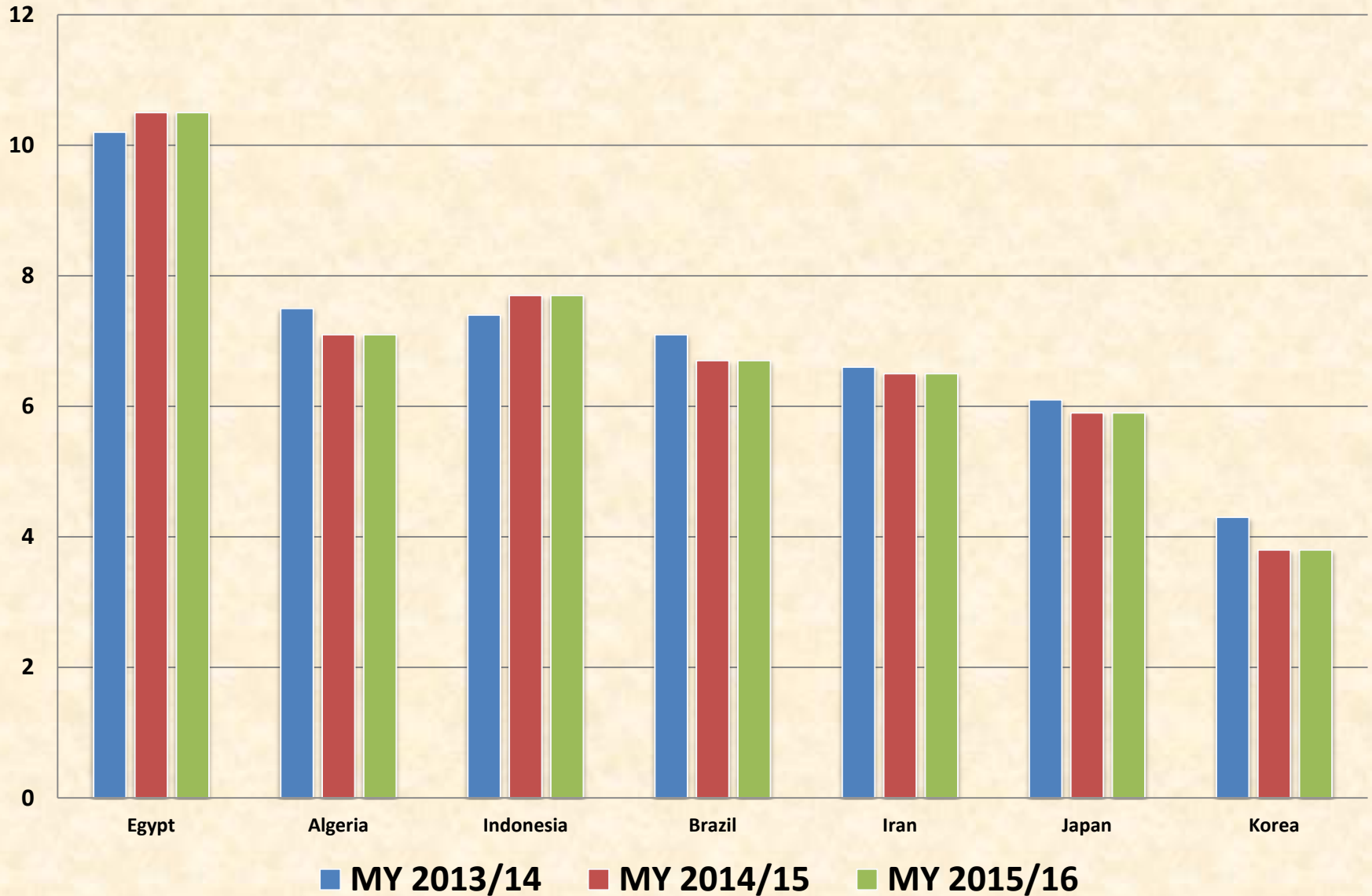
Global Wheat Outlook

- **Bigger Crops**
 - U.S. +3%
 - Australia +8% ?
- **Smaller Crops**
 - EU -4%
 - Russia -11%
 - Ukraine -11%
 - Argentina -4%

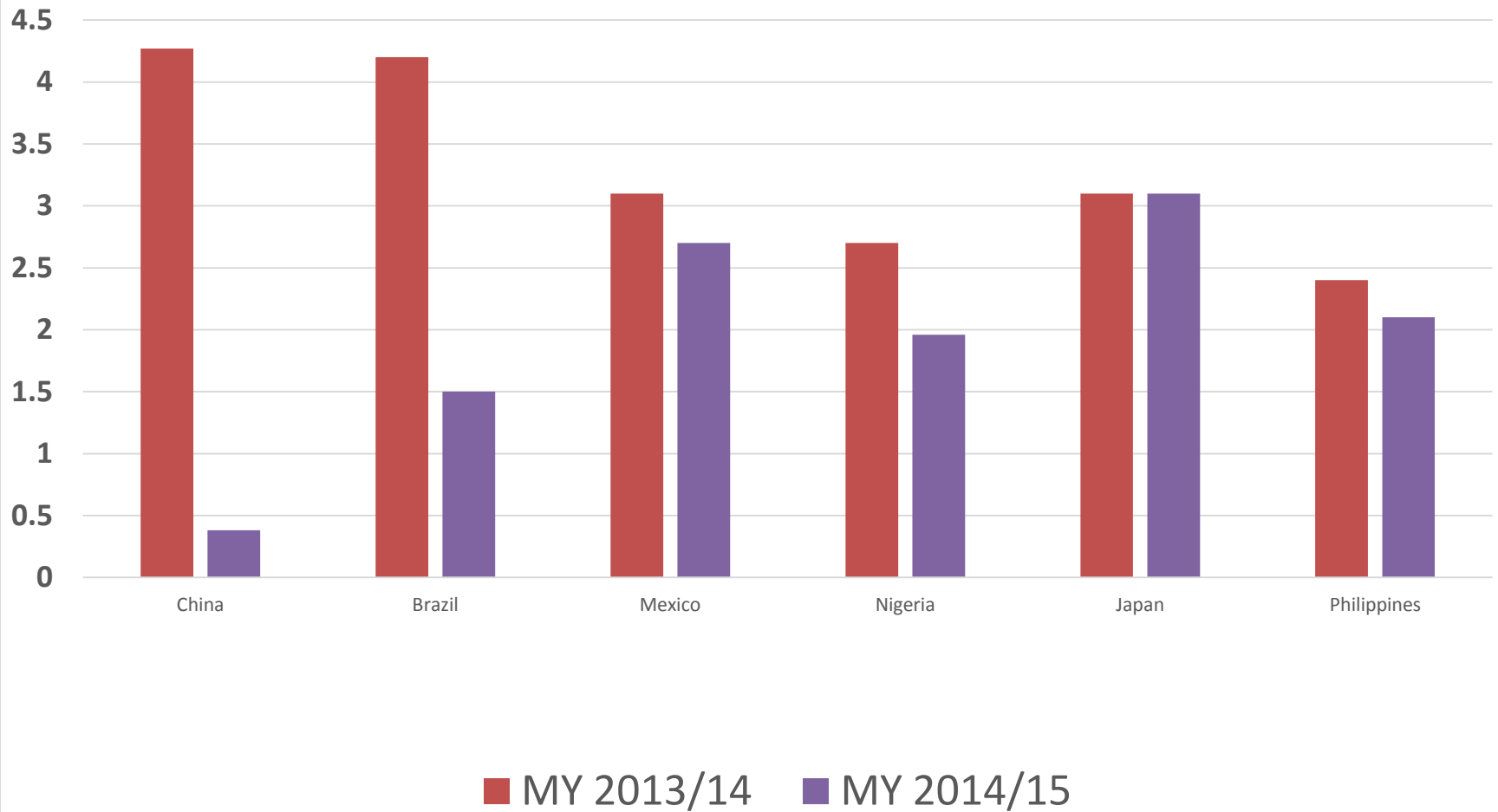
World Wheat Prod, Use, Stocks/Use



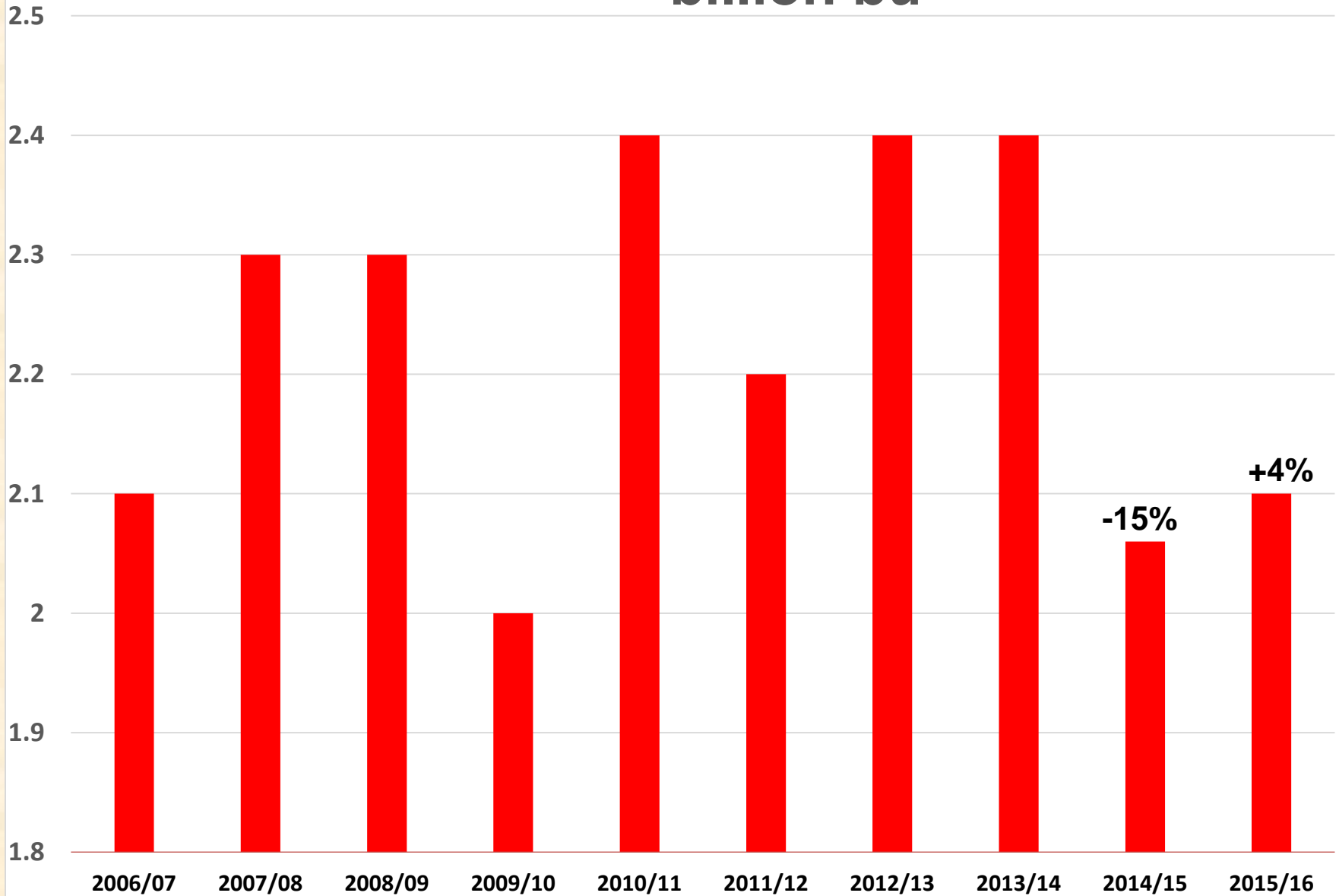
World Wheat Importers, MMT



Top U.S. Wheat Customer Imports 2013/14 vs. 2014/15 YTD, MMT



U.S. Wheat Disappearance billion bu



ZWU15 - Wheat - Daily Line Chart



ZW - Wheat - Weekly Nearest Line Chart



Wheat Price Outlook



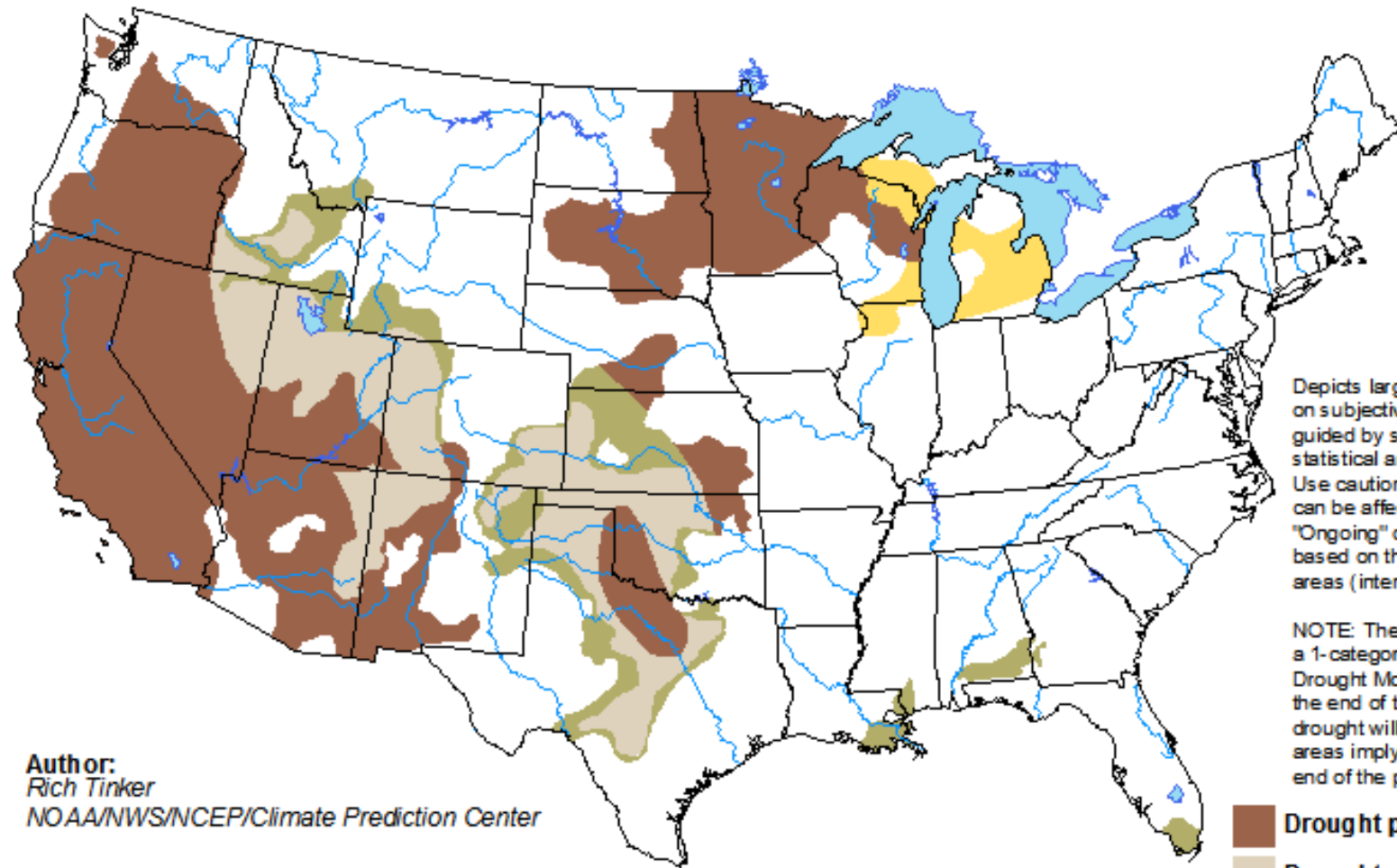
- **Ave. U.S. farm-gate price projection:**
MY 2015/16* - \$5.00/bu, down 17%
MY 2014/15 - \$6.00/bu, down 11%
MY 2013/14 - \$6.87, down 12%
MY 2012/13 - \$7.77, up 7%
- **Idaho SWW prices:** \$4.45 – 5.14/bu May 2015 vs.
\$6.30-6.70 May 2014
- **Idaho HRS prices:** \$5.93 – 6.18/bu May 2015 vs.
\$7.18 – 7.34

**USDA May 12, 2015 projected*

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period





Valid for April 16 - July 31, 2015
Released April 16, 2015

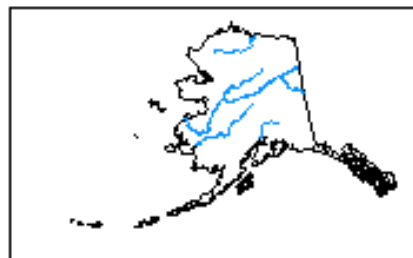


Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

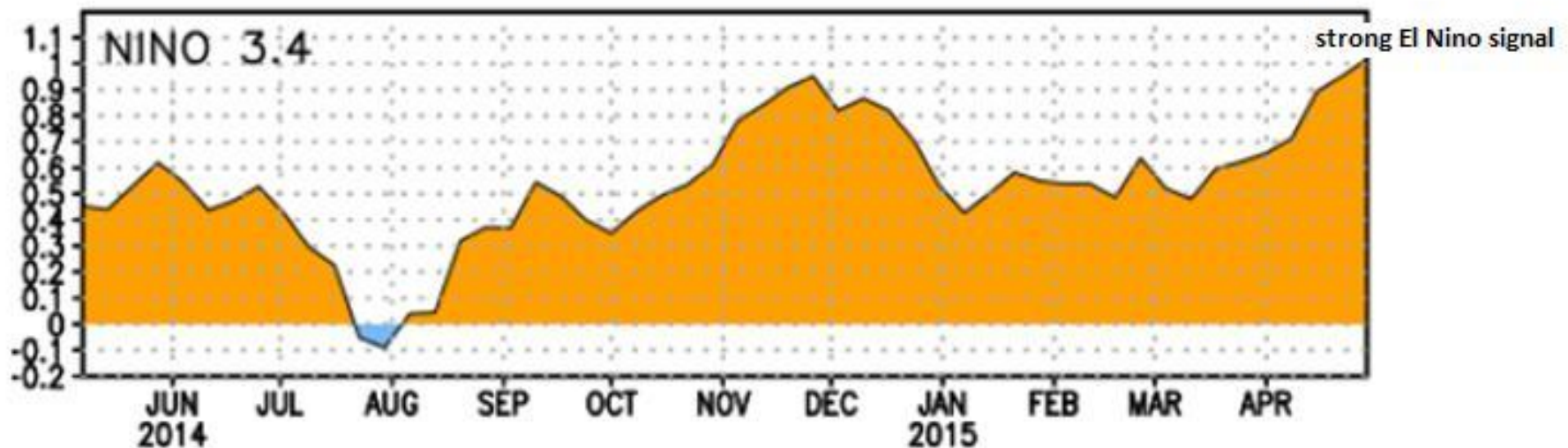
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  Drought persists/intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/hHTe>

Sea Surface Temperature Anomalies (C) Nino 3.4 Region of Equatoria Pacific Ocean

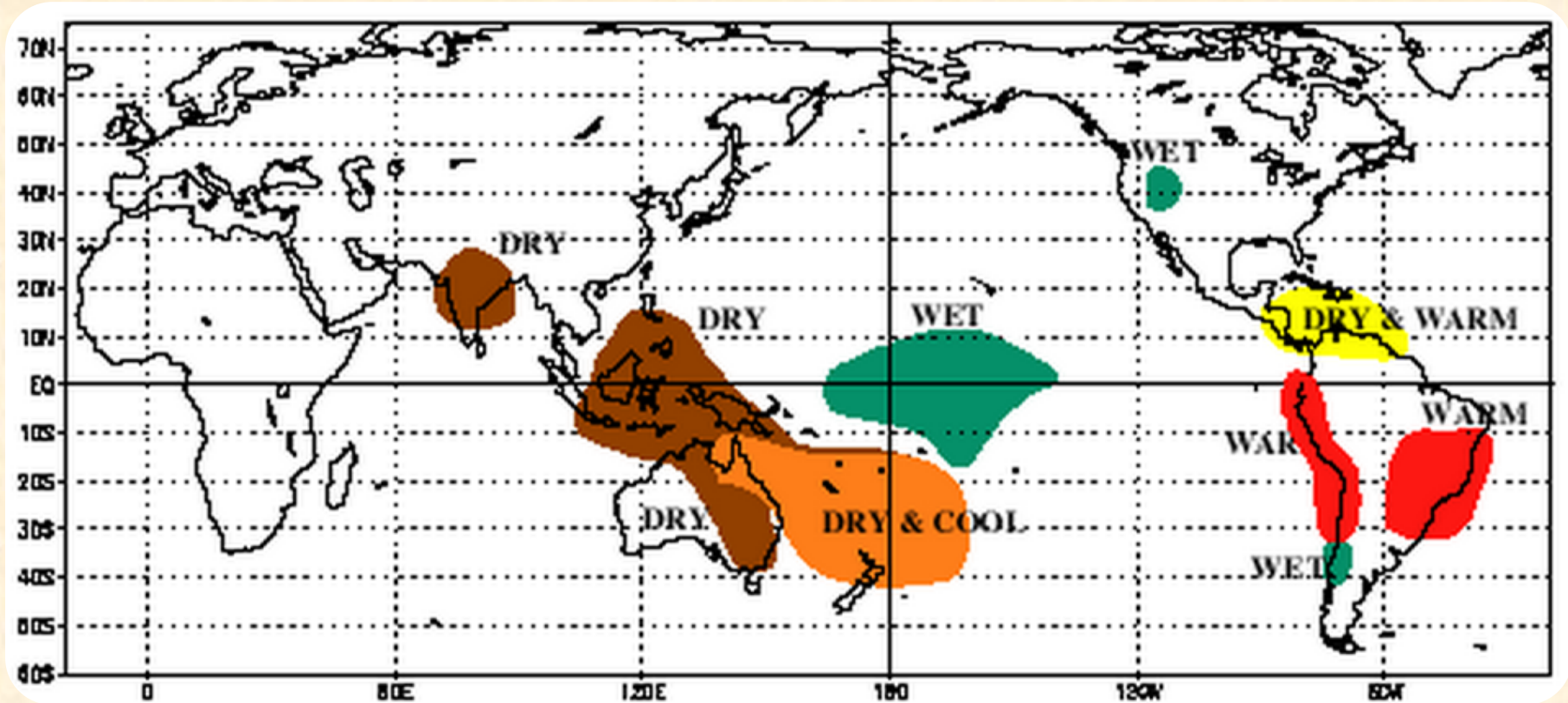


Data source US Climate Prediction Center

Strong El Nino Signal – positive 1 C anomaly in early May represents the warmest conditions since 2009, indicating an exceptionally strong El Nino signal. **What does that mean for 2015 crop production?**

- Wetter than normal Central U.S.
- Cooler than normal Upper Midwest

Typical El Niño Summer Impacts June – August

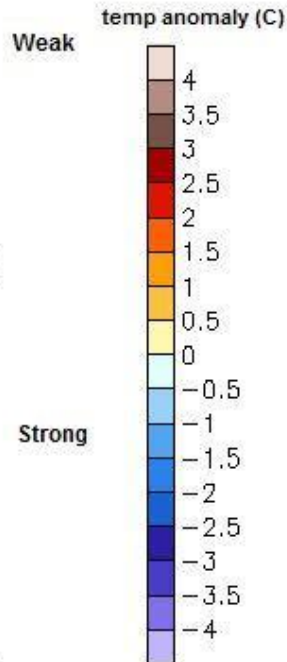
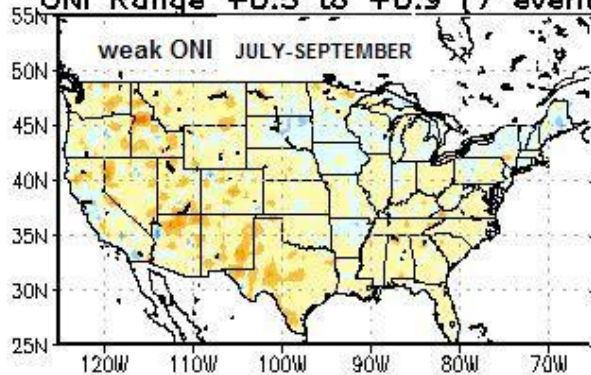


JAS

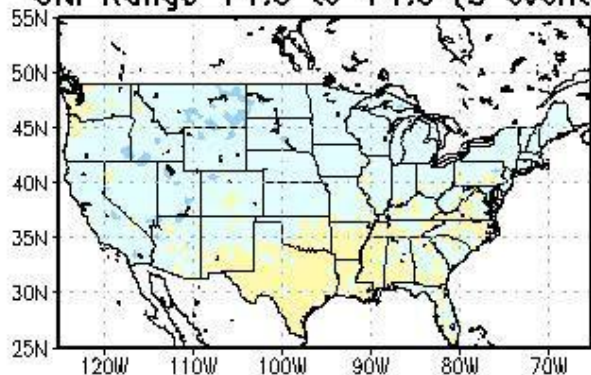
July-September Temperature

Anomalies (C)

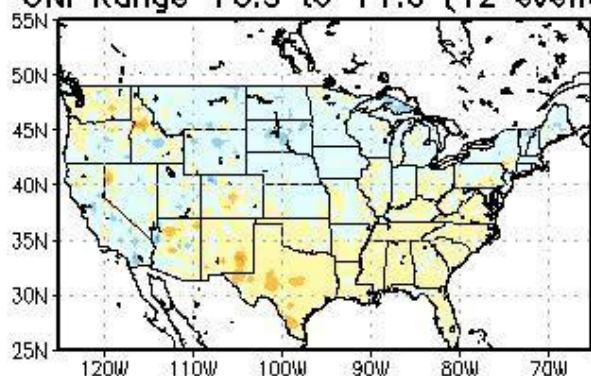
ONI Range +0.5 to +0.9 (7 events)



ONI Range +1.0 to +1.6 (5 events)



ONI Range +0.5 to +1.6 (12 events)

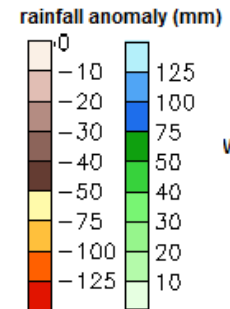
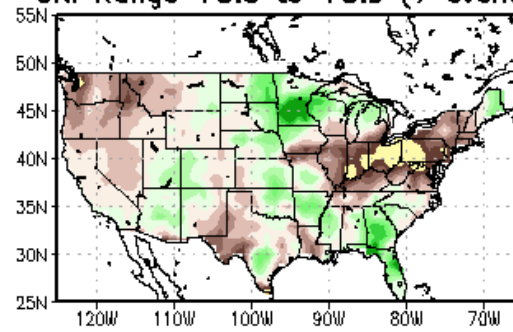


All cases

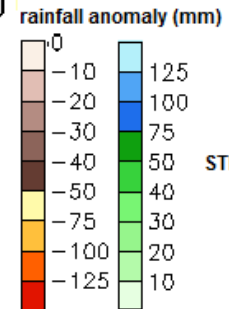
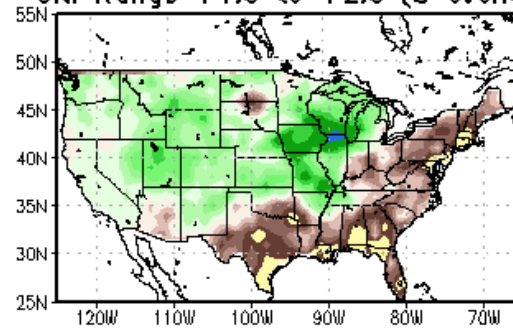
July-August-September Rainfall with El Nino

JAS

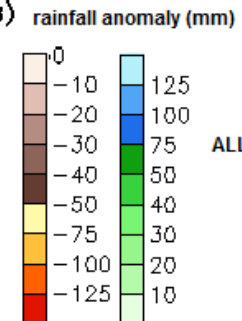
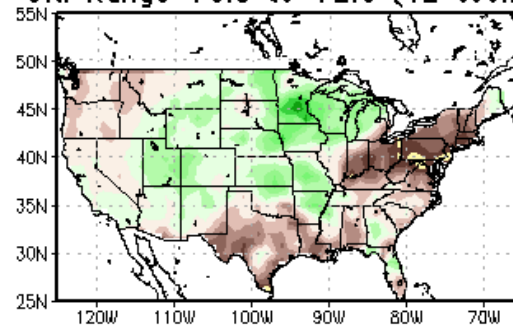
ONI Range +0.5 to +0.9 (7 events)



ONI Range +1.0 to +2.0 (5 events)



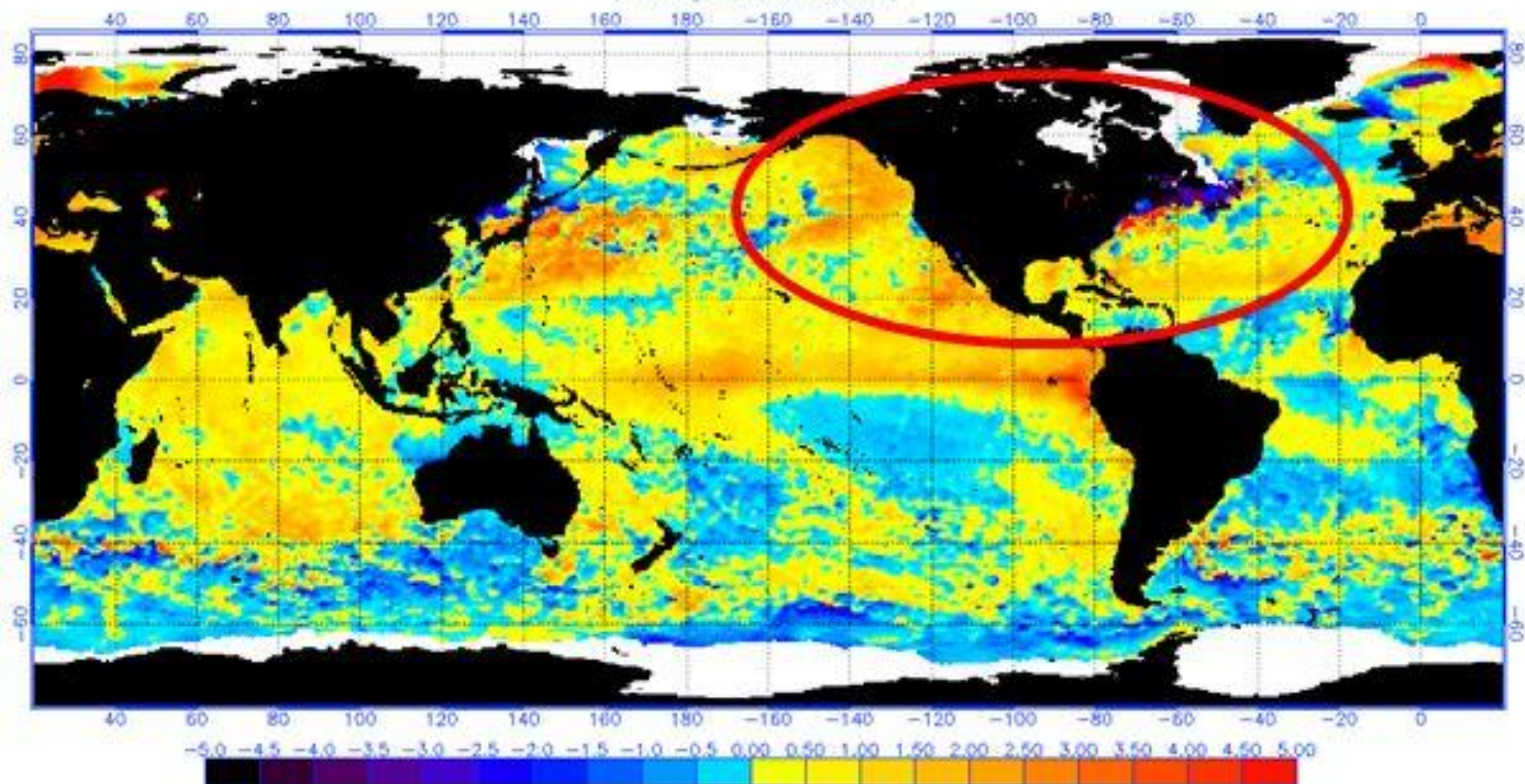
ONI Range +0.5 to +2.0 (12 events)



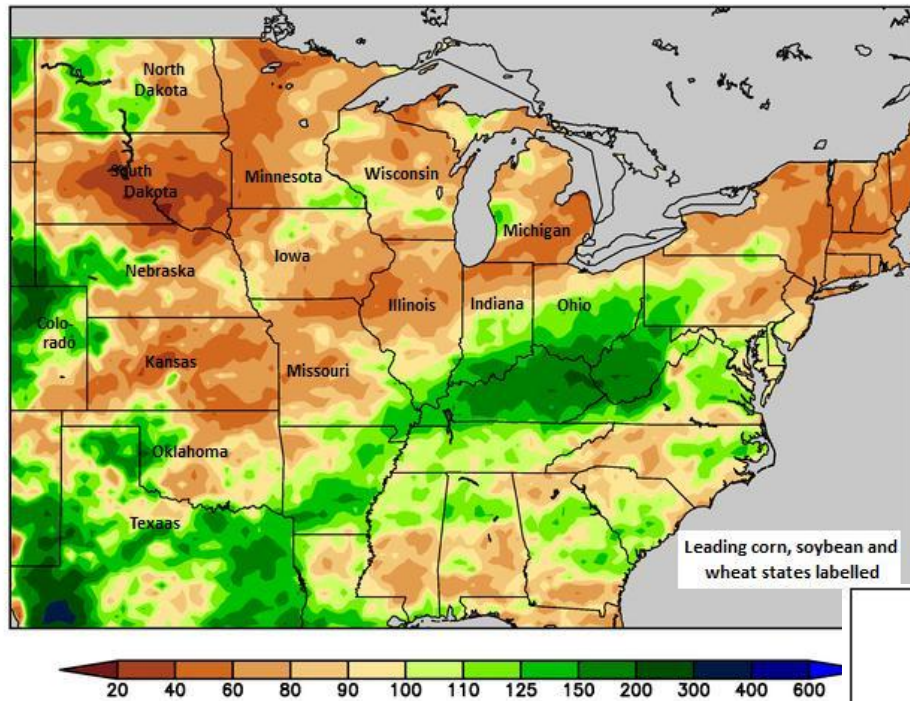
Data source US Climate Prediction Center NOAA

NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 5/7/2015

(white regions indicate sea-ice)



Martell Crop Projections
90-day Precipitation Analysis
Percent of normal through 4 May 2015

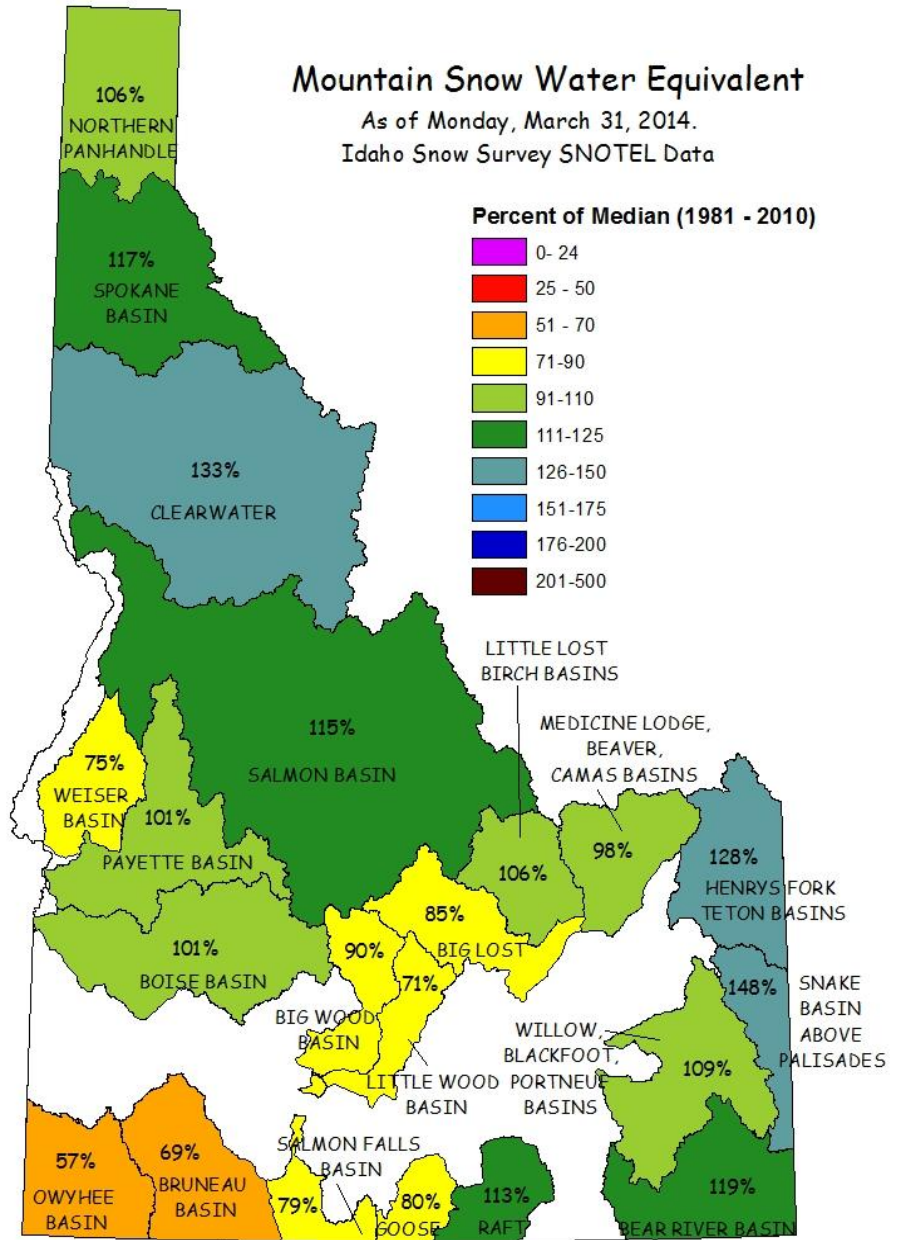
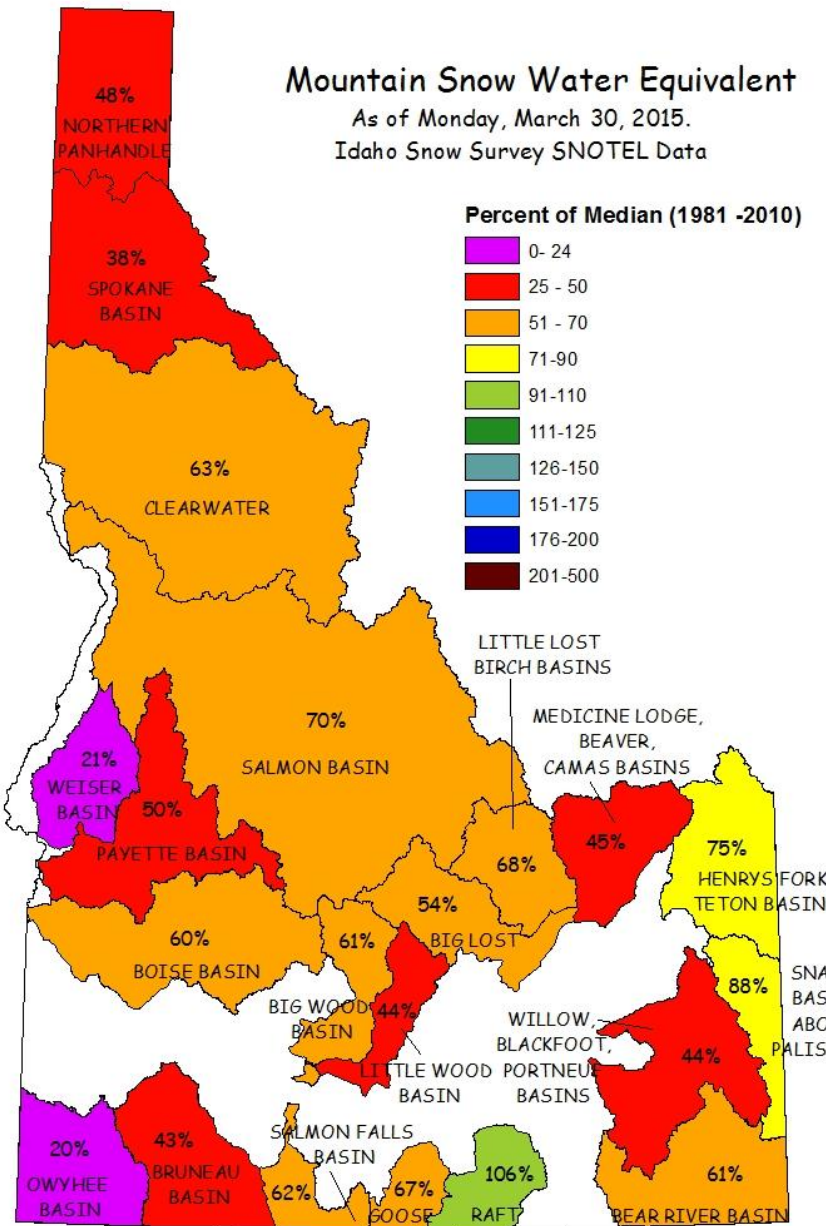


- **Main Corn Belt** - trended dry during winter months, except ECB. Heavy soaking rains through May.
- **Central / Southern Plains** – very dry until past three weeks. Recent wet trend very consistent with El Nino.
- **Summer precipitation** – could be game of variability & extremes.

United States Corn Belt Precipitation (inches)
District corn production weighted average

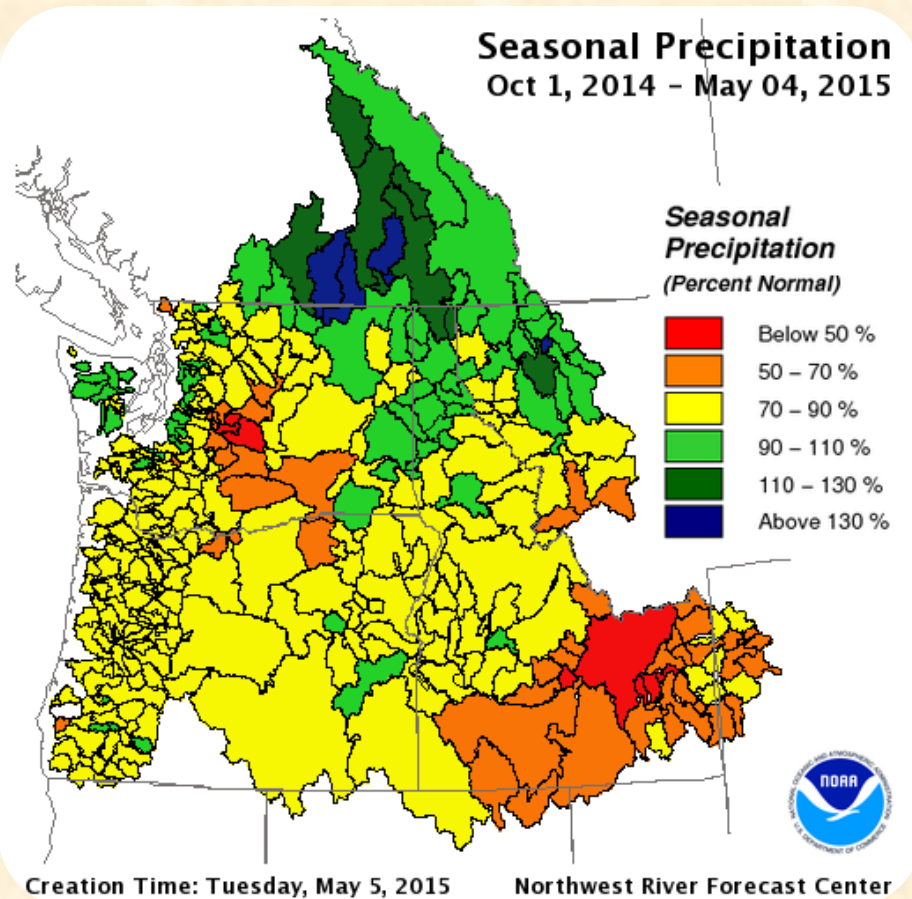


Mountain Snow Equivalent / melts early

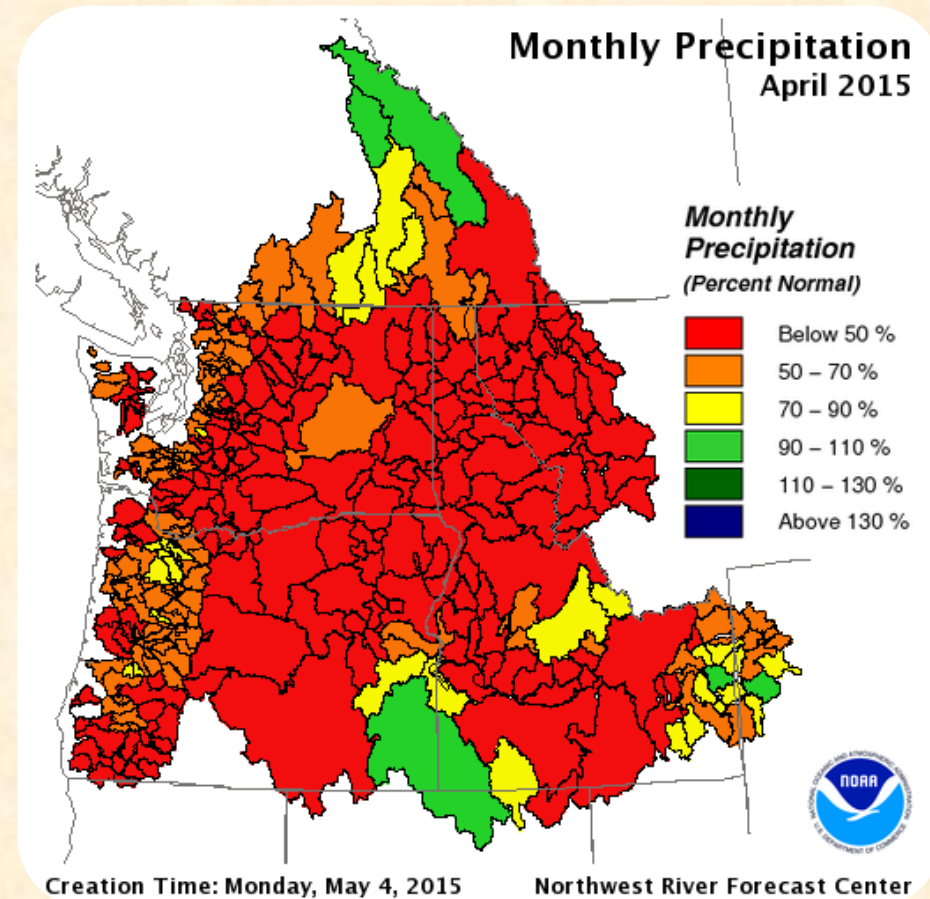


Observed Seasonal Precipitation

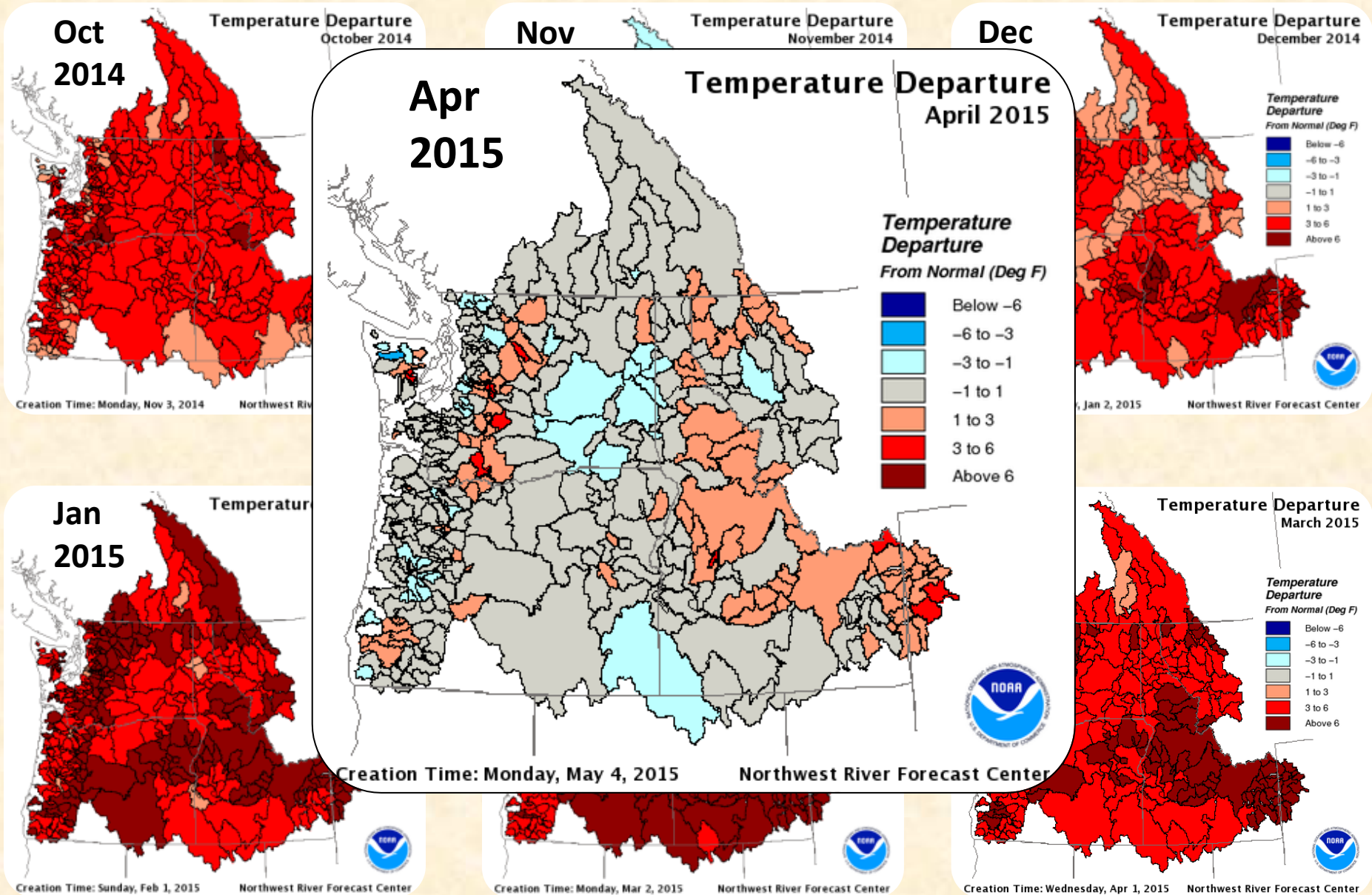
2015 Water Year



April 2015



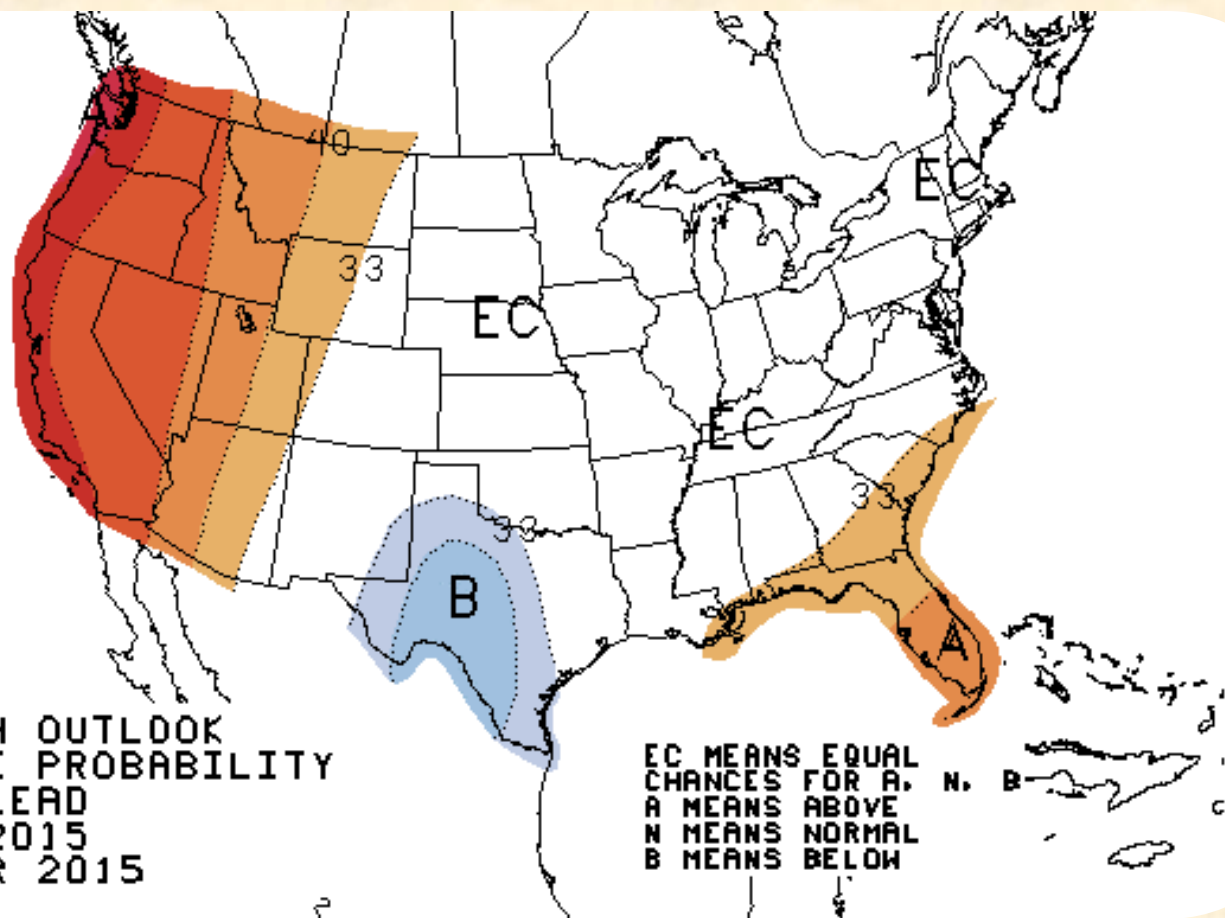
Observed Seasonal Temperatures



Temperature Outlook June –Aug 2015



THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
1.5 MONTH LEAD
VALID JJA 2015
MADE 16 APR 2015

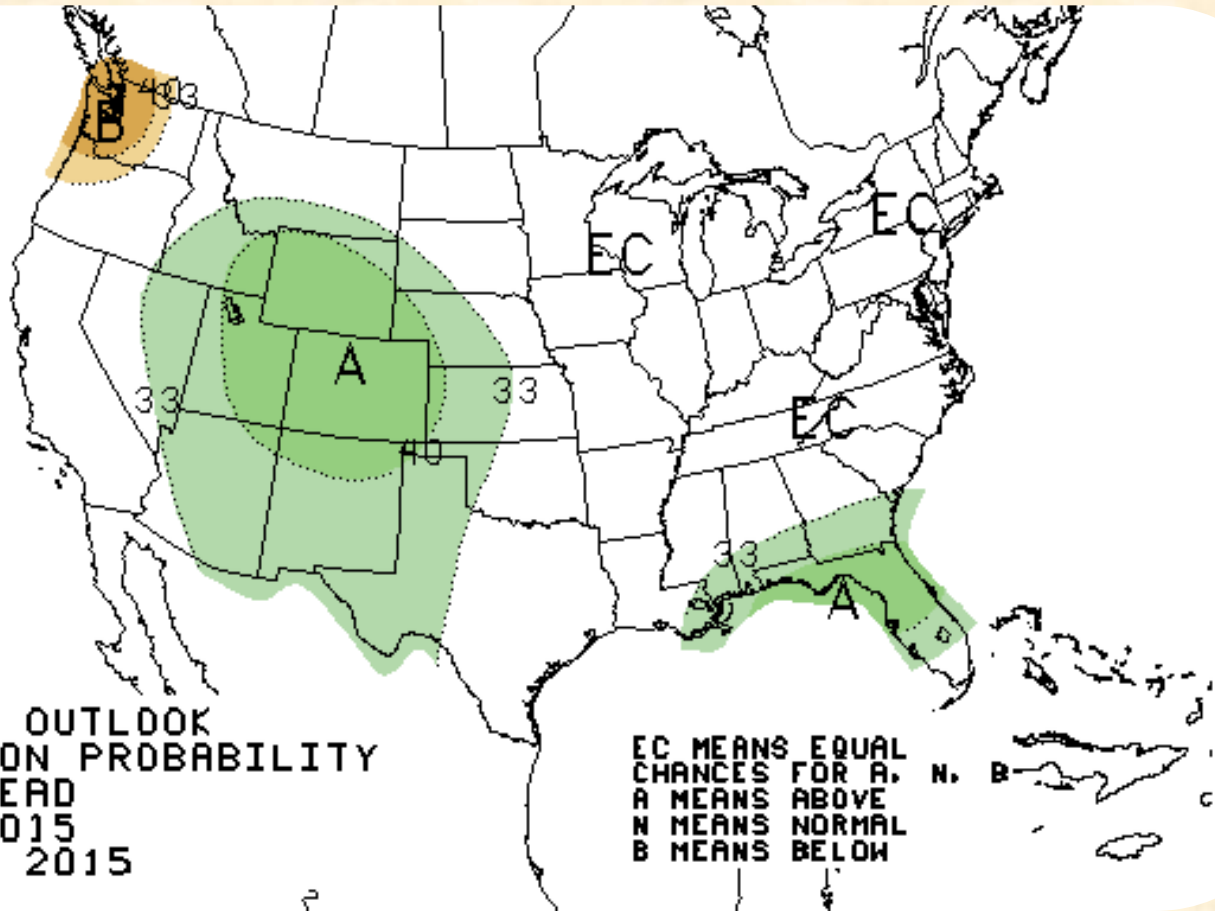


EC MEANS EQUAL
CHANCES FOR A,
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

Precip Outlook June –Aug 2015



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
1.5 MONTH LEAD
VALID JJA 2015
MADE 16 APR 2015



EC MEANS EQUAL
CHANCES FOR A,
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

2015 Idaho Grain Crop Issues

- **Barley Yellow Dwarf Virus is severe in winter wheat and winter barley across south-central Idaho.** Yield losses likely to be significant. Not significant problem in spring grains.
- Moderate winter could lead to greater pest infestations such as armyworms, thrips and mealybugs, compounded by moisture stress.
- High potential for **Wheat Stripe Rust**, confirmed at Parma, Filer, Tetonia, Logan, UT
- **<http://www.uidaho.edu/extension/cereals/scseidaho>**



Thank You

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